



Commercial diving life-support umbilical

Diver Umbilical Cable

IMCA D 014 cabled breathing gas, hot-water, pneumo, comms & video diver umbilical



IMCA D 014

EN 15333-1

Surface & Bell Diving

Application

Multi-component commercial diving umbilical cabled in a torque-balanced planetary lay per IMCA D 014 and EN 15333-1, combining breathing-gas hose, pneumofathometer line, hot-water hose, 4-wire comms, hat-light power and video coax.

Typical uses: Offshore Commercial Diving, Saturation Bell Excursion, Civil & Harbour Engineering, Subsea Hull & Dam Inspection, Naval Salvage & Clearance

Construction



Cross-section, not to scale

- 1 Diver comms, hat-light & video cable
- 2 Breathing gas supply hose
- 3 Pneumofathometer depth hose
- 4 Hot-water suit supply hose
- 5 Tensile strength member
- 6 Component colour jackets & whip

Technical data

Typical values

Comms & hat-light voltage	30 V – 250 V AC/DC (low-voltage diver safety)	Audio pair attenuation	Low-capacitance screened star-quad (< 65 pF/m)
Video coaxial impedance	75 ± 3 Ω (composite / HD-SDI helmet video)	Conductor stranding	IEC 60228 Class 5 tinned copper
Dielectric test voltage	1,500 V AC rms for 5 min	Operating seawater temperature	–5 °C to +50 °C
Hot-water hose rating	Up to +95 °C continuous internal flow	Deck ambient storage	–30 °C to +70 °C
Breathing gas working pressure	35 bar (500 psi) or 70 bar (1,000 psi)	Breathing gas burst pressure	140 bar (2,000 psi) or 280 bar (4,000 psi)
Vacuum collapse resistance	710 mmHg (28 inHg) without liner collapse	Min. breaking load (MBL)	15 kN (3-part) to 50 kN (heavy bell excursion)
Min. bend radius	8 × overall bundle OD without kinking	Breathing gas purity	BS EN 12021 / EN 15333-1 odour & toxicity free
Hydrolysis & microbiological	Polyether TPU jackets resist tropical marine rot	Oil & hydrocarbon splash	Resistant to diesel, compressor oil & hydraulic fluid
Abrasion resistance	Heavy-duty TPU + optional polyester outer overbraid	Standards	IMCA D 014 / IMCA D 018
Standard packing	Hydrostatic test chart, gas cleanliness certificate & electrical test report		

Sizes

12 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Component Breakdown	Gas ID mm (in)	Gas WP bar	Bundle OD mm	Weight in air kg/km	Weight in sea kg/km	MBL kN	Min. bend R mm
Surface-Supplied Air & Mixed-Gas Umbilicals (3-Part & 4-Part) 6 sizes								
☐ DUC-3P-38-FLT	3/8" Gas + 1/4" Pneumo + 4W Comms (Floating)	9.5 (3/8")	35	27.5	460	-25	15	220
☐ DUC-3P-38-SNK	3/8" Gas + 1/4" Pneumo + 4W Comms (Sinking)	9.5 (3/8")	35	26.8	540	75	18	214
☐ DUC-4P-38-FLT	3/8" Gas + 1/4" Pneumo + Comms + Video/Light (Floating)	9.5 (3/8")	35	31.0	585	-20	20	248
☐ DUC-4P-38-SNK	3/8" Gas + 1/4" Pneumo + Comms + Video/Light (Sinking)	9.5 (3/8")	52	30.2	690	95	22	242
☐ DUC-4P-12-SNK	1/2" Gas + 1/4" Pneumo + Comms + Video/Light	12.7 (1/2")	52	34.5	830	115	25	276
☐ DUC-4P-38-BRD	3/8" Gas + 1/4" Pneumo + Comms + Video (Overbraided)	9.5 (3/8")	52	32.8	760	110	32	262
Hot-Water & Saturation Bell Excursion Umbilicals (5-Part & Main Bell) 6 sizes								
☐ DUC-5P-38-HW38	3/8" Gas + 1/4" Pneumo + 3/8" Hot Water + Comms + Video	9.5 (3/8")	70	38.5	1,040	145	30	308
☐ DUC-5P-38-HW12	3/8" Gas + 1/4" Pneumo + 1/2" Hot Water + Comms + Video	9.5 (3/8")	70	42.0	1,220	175	35	336
☐ DUC-5P-12-HW12	1/2" Gas + 1/4" Pneumo + 1/2" Hot Water + Comms + Video	12.7 (1/2")	70	45.2	1,390	195	40	362
☐ DUC-BELL-EX-35M	3/8" Gas/Reclaim + 3/8" HW + 1/4" Pneumo + Comms/Video (Bell Excursion)	9.5 (3/8")	70	44.0	1,340	180	42	352
☐ DUC-STBY-38-BRD	3/8" Gas + 3/8" HW + 1/4" Pneumo + Comms (Standby Diver Braided)	9.5 (3/8")	70	36.4	980	140	38	291
☐ DUC-MAIN-BELL-12P	Multi-Gas + Reclaim + 3/4" HW + Power + FO + Comms (Main Bell)	12.7 (1/2")	105	68.0	3,450	620	55	544

– All gas and pneumo hoses are factory hydrostatically proof-tested to 1.5 × working pressure and flushed/sealed before dispatch.

Standards and approvals

- ✓ IMCA D 014 / D 018 Compliant
- ✓ EN 15333-1 / BS EN 12021 Breathing Hose Grade

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

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Email

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Typical values for this cable type, based on IMCA D 014 / EN 15333-1 / BS EN 12021. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.